

## CLAIMS

### I claim:

- 1) A box joint jig, comprising:
  - a bottom plate;
  - a back plate joined to the bottom plate; and
  - an alignment member the alignment member structured to orient four boards positioned adjacent the bottom plate for contiguous routing such that the routes on the four boards are positioned to interact forming box joints.
- 2) A box joint jig, comprising:
  - a bottom plate, the bottom plate defining bottom grooves;
  - a front plate joined to the bottom plate, the front plate defining front grooves, wherein the front grooves and bottom grooves are in alignment;
  - a back plate joined to the bottom plate; and
  - an alignment member structured to orient four boards adjacent the front and back grooves for a router to cut both sides of a box joint in one cut.
- 3) The device of claim 2 wherein the bottom plate is fastened to the back plate.
- 4) The device of claim 2 wherein the bottom plate is fastened to the front plate.

- 5) The device of claim 2 further comprising handles joined to the back plate.
- 6) The device of claim 2 wherein the back plate further comprises a guide board, the guide board including visual guides.
- 7) The device of claim 2 wherein the back plate further comprises an alignment aperture defined through the back plate.
- 8) The device of claim 7 wherein the alignment member further comprises a fastener and a block, the fastener extending through the alignment aperture and joining to the block.
- 9) The device of claim 2 wherein the alignment member is a back alignment member.
- 10) The device of claim 2 wherein the alignment member is a bottom alignment member.
- 11) The device of claim 2 wherein the alignment member further comprises a groove engagement segment and a route engagement segment.
- 12) The device of claim 11 wherein the groove engagement segment of the bottom alignment member is sized to be snugly received within the bottom groove.

- 13) the device of claim 11 wherein the route engagement segment is sized to be snugly received within a route defined in a board.
- 14) The device of claim 2 further comprising an adapter, the adapter including a groove engagement segment, and the adapted being structured to operably communicate a router bit with boards disposed on the bottom plate.
- 15) The device of claim 11 wherein the groove engagement segment of the adapter is sized to be snugly received within the bottom groove.
- 16) The device of claim 2 further comprising at least one board.
- 17) The device of claim 16 wherein the at least one board is clamped to the back plate.
- 18) The device of claim 2 wherein the alignment member is removable.
- 19) A method of forming a box joint, comprising the steps of:
  - mounting four boards in a jig;
  - routing the boards through a groove;
  - routing the boards through additional grooves until opposing edges of both sides of each board have routes disposed along the entire length thereof;

dismounting the boards; and

joining the corners of the boards interlacing the routes cut in the boards.

- 20) The method of claim 19 further comprising the step of:
- using a back alignment member; and
- switching the back alignment member with a bottom alignment member to
- complete the routing of the boards.